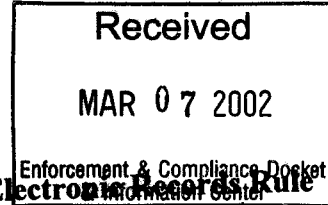


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**Testimony of
Richard J. Lowery
(BP America Inc.)
at
EPA's Public Hearing
on
Proposed Establishment of Electronic Reporting and Electronic Records Rule
Chicago, IL
November 9, 2001**



Good afternoon. I am Dick Lowery, a Senior Environmental Coordinator and IT Project Manager with BP in Lisle, IL. I am pleased to have this opportunity to offer our comments on EPA's proposed Cross-Media Electronic Reporting and Recordkeeping Rule, known as "CROMERRR." BP is a global petroleum and petrochemical company with many facilities in the United States that are subject to EPA reporting and recordkeeping requirements.

In general, BP supports EPA's efforts toward electronic environmental reporting, electronic signatures, and electronic recordkeeping. Your intentions mesh well with our goal to be a progressive company whose operations are open and accessible to our communities and customers. But as proposed, CROMERRR won't work for three main reasons: First, it's not as voluntary as EPA says it is, and this means there are large numbers of businesses who don't yet know they're affected; second, CROMERRR is far too prescriptive; and third, it is going to be expensive, and for what result?

Therefore we suggest that as a minimum EPA should sever the recordkeeping provisions from the rest of the proposal and withdraw them for further analysis. Also, EPA should provide a 60-day extension of the comment period for the reporting and signature sections. Let me explain why.

Is CROMERRR really voluntary? We think not. EPA proposes CROMERRR to apply to any computer-managed record that supports or documents any EPA compliance requirement, either to support data in a required report or to document data used to define a decision to not report. But electronic records are already almost everywhere in business, so meeting EPA's applicability requirement would mean either reverting to paper records or modifying existing electronic recordkeeping system. In practice, therefore, CROMERRR would be mandatory for some 8.2 million facilities regulated under 40 CFR. The burden would be greatest for the 1.7 million facilities obligated to submit compliance data under 40CFR.

Most of these affected facilities have no idea that they would be prohibited from using a computer to keep EPA records. Most states do not realize the impact of EPA making their current electronic reporting null and void. So we think it necessary for EPA to extend the comment period by 60 days – and conduct an intensive outreach effort - to allow the affected reporting community time to realize that CROMERRR is not voluntary and that they are really affected in significant ways.

Why do we think CROMERRR is overly prescriptive?

In many places CROMERRR specifies new ways to do recordkeeping, reporting, and signatures when suitable methods already exist. For example, why not use the relatively simple, current e-signature legislation (PL 106-229) rather than generating a new 9-step criteria in CROMERRR?

And will it be expensive? BP thinks so. We are a fairly sophisticated user of electronics, and some of our sites have hundreds of computer applications dealing with environmental recordkeeping and reporting. And we have thousands of sites. If we assume we have to look at each of our applications in a fashion similar to that undertaken for the Y2K effort, we estimate we'd spend well over the 150 million dollars we spent for Y2K in the US.

Even EPA seems to think it is expensive. A conservative estimate, using EPA's own \$40,000 per site estimate for upgrade and \$17,000 annual maintenance cost, would amount to **\$68 Billion** to the 1.7 million "reporting" facilities and **another \$260 Billion** to the remaining 6.5 million regulated but not reporting facilities

Amazingly, EPA seems to not have supported the need for such huge expenditures. There is little or nothing in the public record addressing the impact of the recordkeeping provisions on regulated facilities. What excessive electronic fraud is the whole of industry perpetuating on the EPA with their current, extensive electronic recordkeeping?

Thus, regretfully BP cannot support the CROMERRR rule as proposed by EPA. We urge EPA to extend the comment period for the reporting and signature sections and conduct outreach to the many facilities who may not know they're affected. And we urge EPA to sever the recordkeeping section of the rule and withdraw it for further work

Thank you for your attention.

A handwritten signature in black ink, reading "Dick Lowery". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

DISCUSSION OF CROMERRR BY BP

1. OVERALL PURPOSE OF CROMERRR SHOULD BE TO ALLOW EFFICIENT AND ACCURATE REPORTING AND DATA MANAGEMENT WITHOUT OVERLY PRESCRIPTIVE GUIDANCE.

A. ELECTRONIC REPORTING ALLOWS EFFICIENT AND

ACCURATE REPORTING: BP supports the current “magnetic reporting” (diskette, CD ROM) reporting being utilized in much of EPA’s reporting as well as reasonable, efficient, and accurate “electronic reporting” that is currently being required by some states regarding 40CFR data submissions. See attached table (State Electronic Reporting) for list of some state environmental electronic reports that we have identified. We have already been electronically reporting environmental data for some time. We support electronic reporting with EPA if it were designed properly, so as to allow efficient and accurate reporting of environmental data. Some of the minimum requirements would be:

- User friendly and easy to use
- Available in working form, fully compliant with the regulations and properly beta tested by the user community. TRI-ME beta version was so poorly designed that the program had to be scrapped at the last minute for 1999 reporting year.
- No last minute changes. There needs to be a 3-6 month period with no program changes allowed prior to report deadline. We have experienced last minute changes in TRI guidance (Sulfuric

acid withdrawal on June 30 for July 1 reporting). Another significant last minute modification occurred a few years ago when TRI metals-treatment reporting guidance changes were made only to the EPA website without notice/documentation being provided to the reporting community (this caused EPA to have to extend their reporting deadline beyond that allowed by law),

- Electronic reporting truly needs to be voluntary. It needs to have a tested, workable, back-up submission process in place. Current magnetic physical media (diskette or CD ROM) and/or paper could be back-up options. If cost is a concern, the user/submitter could be charged for the additional processing cost if submitted on paper.
- Several different electronic data transfer mediums need to be available, such as EDI or XML, etc. Shouldn't rely on only one vendor. User community should not incur additional software/hardware cost to participate.
- Another option for gaining efficiencies in the short term would be to increase the use of magnetic physical media (diskettes, CD ROMs), which has been quite successful in the past. This use could be increased by making it mandatory, especially if the bulk of the current inefficiencies and high processing costs are due to paper processing. Most of the efficiencies to be gained when switching from paper to electronic reporting can be gained by switching from paper to magnetic media.
- EPA needs to be responsible for the validity of their programs used to submit/process electronic reports. EPA should not continue to

use the disclaimers: “we are not responsible for the quality of your data”. If the reporting community uses the programs as directed and put the correct data into EPA’s electronic media, then the user’s reporting commitments should be met. We experienced some of these problems with TRI’s ATRS this past reporting year, where missing data should have been caught by the validity checking routine that failed to perform properly as designed.

- Finally, EPA has to adequately address the need to be able to process significant number of submissions on the day the reports are due. The submitter should not be penalized if there is an EPA system overload or if the EPA system crashes, then the deadline would need to be automatically extended.

B. ELECTRONIC SIGNATURE SHOULD BE SIMPLE: BP supports the use of electronic signatures. However, the proposed 9-step criteria are too prescriptive. There is no reason that the current e-signature guidance (PL 106-229) and current use of this guidance should not be sufficient for validating the submission by a “responsible party”. We see no need for our management to provide private and personal data, such as credit card numbers. E-signature should be no more difficult to use than actual “ink” signatures. This process has to be easy and user friendly. There still needs to be a fall-back position of allowing and accepting a one page written document signed by the responsible party, documenting and authorizing the electronic report submission, just as is done with magnetic media submissions today. EPA needs to be cognizant that today’s industrial management is quite dynamic, changing positions and responsibilities more often than usual. Any

system for “electronic signature” that is implemented should allow for alternates and also not require that a validated individual can only use one computer...at times managers travel without their computer and they should still be able to submit an e-signature from a different computer.

C. ELECTRONIC RECORDKEEPING IS EXTREMELY COSTLY:

Electronic recordkeeping needs to allow for efficient, cost effective, and accurate electronic data. Sites have been using and storing their environmental data electronically for years in accordance with current recordkeeping guidance and in compliance with 40CFR. Electronic data recordkeeping should be no more onerous than either paper records or the current electronic records that have been used for decades for compliance with 40CFR. Is there a massive electronic fraud that requires the large (hundreds of Billions of dollars) expenditure? (All of the following sections address this issue—please refer to them.)

2. **RECORDKEEPING IS NOT VOLUNTARY:** The CROMERRR preamble begins by saying, “Under today’s proposal, electronic document submission or electronic recordkeeping will be totally voluntary.” Reporting in CROMERRR may be voluntary, but “recordkeeping” compliance is mandatory. There are 8.2 million facilities that are subject to 40CFR, with some 1.7 million being required to report, and with another 6.5 million required to document why think they do not need to report. All of these need to keep records. In today’s electronic age of computers, nearly everyone has data on computers. CROMERRR would apply and be a major burden to all. Because of the “voluntary” statement in the preamble, many facilities in the regulated community feel that they can opt out of CROMERRR’s costly compliance requirements. This is not the case. The same

is true of many state environmental agencies who also do not appreciate the grave impact of this proposed rule on their standard operations. They also were confused by the “voluntary” blanket placed over this proposal. For this reason, the CROMERRR deadline for comments should be extended by 60 days to allow adequate and useful comments from the confused regulated community and state agencies.

3. **MASSIVE, ABSURD COST OF RECORDKEEPING:** EPA has not recognized nor justified the large costs associated with the recordkeeping provisions when viewed as mandatory. EPA’s cost-benefit analysis for CROMERRR indicates that the recordkeeping provisions can only be justified as a voluntary program, because the costs exceed the benefits. A conservative estimate of cost of compliance has been made:
 - A. **COST TO BP:** The cost to BP of implementing CROMERRR is estimated to be significantly greater than the \$150 million we expended on Y2K in the US. This appears to be a valid assumption because of the obvious similarities of total software review and subsequent modification of data elements. Some of our large sites have over 320 discrete computer software applications that would probably need upgrading. Minimum upgrading costs are estimated to be at least 10-15% of original software development cost, so many of our large programs will cost more than a quarter of a million dollars each to bring into CROMERRR compliance. Because BP has been an active participant in the computer age for decades, this recordkeeping rule would affect nearly all of our sites, including over 3,200 US service stations subject to 40 CFR. Applying EPA’s estimated \$40,000 per site cost for just these service stations

would result in \$128 million cost. These costs are massive in both dollars and time.

B. COST TO OTHERS: The cost to the US regulated community is also massive. A conservative estimate, using EPA's own \$40,000 per site estimate for upgrade and \$17,000 annual maintenance cost, would amount to **\$68 Billion** to the 1.7 million "reporting" facilities and **another \$260 Billion** to the remaining 6.5 million regulated but not reporting facilities. Both need to maintain records to thoroughly document either their reporting or their decision not to report. If you believe, from the data supplied by industry that EPA's costs are grossly underestimated, then this massive cost becomes even more absurd.

4. **PROHIBITING ALL CURRENT COMPUTER RECORDKEEPING:**

CROMERRR would amend current EPA recordkeeping requirements by prohibiting electronic recordkeeping until such time in the future as EPA issues a notice to allow electronic recordkeeping to begin. Many EPA recordkeeping requirements already allow electronic recordkeeping. Some states currently require environmental electronic reporting, which by definition necessitates creation of electronic records. Immediate compliance with CROMERRR would require everyone to stop using their computers to generate and store data that are used not only for EPA reporting but also for controlling their complex manufacturing processes. Even if a site decided to go to ALL paper recordkeeping to be in compliance with CROMERRR, it would be impossible. Many paper record elements are originally created by computers. This would then make this original electronic data recordkeeping out of compliance with CROMERRR.

5. **IMPACT NOT ADDRESSED IN RULE:** EPA has failed to support these very expensive provisions. EPA has little or nothing in the public record addressing the impact of the recordkeeping provisions on regulated facilities. Again, what is the purpose of this onerous “recordkeeping” rule? What excessive electronic fraud is the whole of industry perpetuating on the EPA with their current, extensive electronic recordkeeping? There needs to be some degree of trust. We are all striving to work, operate, and report within environmental laws. BP management requires us to work ethically and BP staff members sign an annual ethics statement documenting our compliance with stated ethics. We in industry are attempting to correctly interpret the wide scope of environmental law and then adjust our operations and manage our recordkeeping and reporting to be in compliance.
6. **DATA RECORDS ARE NOT PUBLIC:** A site’s data reported to EPA electronically or otherwise becomes public information, with the exception of company trade-secrets. EPA’s accessibility to company recordkeeping data is the same for electronic recordkeeping as it is for paper recordkeeping. EPA would not have the right to full access to all company electronic data via an active computer terminal, but would still have access to all pertinent data requested, subject to current recordkeeping requirements. CROMERRR should not be able to expand the extent of recordkeeping requirements, but rather stay within the statutory limits defined by law.

STATE ELECTRONIC REPORTING
(Supplied by BP)

Location	Sent to	Report Name
Coraopolis, PA Terminal	Allegheny Co Health Dept	Annual Air Emissions Inventory
Naperville R&D, Chem	Illinois EPA	NPDES permit application documents that in
Lima Chem	Ohio EPA	RCRA Annual Report
Toledo Refinery	Ohio EPA	Fee Emission Report (for air emissions)
Marietta Chem	Ohio EPA	Fee Emission Report and Emission Inventor
Toledo Refinery	Ohio EPA	NPDES Discharge Monitoring Report
Marietta Chem	Ohio EPA	NPDES DMR using Swimware Software
Lima Chem	Ohio EPA	NPDES Report Followed by Hard Copy
Carson Chem	SCAQMD	Monthly NOx Reclaim Report
Carson Chem	SCAQMD	Quarterly SOx Reclaim Report
Carson Refinery	SCAQMD	RECLAIM NOx and SOx CEMS data on 41
Texas City Refinery	TNRCC	Annual Waste Summary
Texas City Refinery	TNRCC	Notification of use of alternate wastewater o
Pasadena TX Chem	TNRCC	STEERS - ELECTRONIC CLASS 1 & HAZ 1
Texas City Refinery	TNRCC	Steers - wastes generated
Texas City Refinery	TNRCC	Waste Minimization/Source Reduction Annu
E&P, Upstream		Have not addressed this with them, only with
Added Info	Louisiana EPA	In 2002 the 312 Teir II Reports MUST be ele
Added Info	Arizoan EPA	Electronic reporting of Teir II reports have be
Added Info	MN, MI, NJ	States are asking for Title V permits to be su
General		Files often too large to attach to email, so cc

BACKGROUND DATA SUPPORTING COST ESTIMATES FOR SOFTWARE UPGRADES TO COMPLY WITH CROMERRR

(Supplied by BP)

FROM INFORMATION PROVIDED BY BP STAFF, IT IS ESTIMATED THAT THE COST TO BP WILL BE GREATER THAN \$150 MILLION TO COMPLY WITH THE ELECTRONIC RECORDKEEPING PORTION OF EPA'S PROPOSED "CROMERRR" RULE. THIS PORTION OF THE RULE NEEDS TO BE SET ASIDE AND REWRITTEN WITH THE ASSISTANCE OF THE REGULATED COMMUNITY.

Proposed criteria states that all electronic data records for supporting EPA reporting that are either created, managed, or stored by a computer must meet a new stringent audit trail criteria to avoid any chance of electronic fraud in EPA reporting. This proposed rule is CROss-Media Electronic Reporting and Recordkeeping Rule (CROMERRR). EPA has developed standards of time/date/user stamping all data elements, of archiving all changes, and of generating a readable audit report to be readily available to EPA inspectors.

We estimated the minimum cost estimate of upgrading one of our large TRI Emissions calculation software programs to meet the proposed CROMERRR audit criteria. This minimum cost was \$200-250 thousand for this complex program that initially cost about \$2 million to develop. Therefore the cost of upgrade to meet CROMERRR is a minimum of 10-15% of development cost. It is believed that this 10-15% of development cost is a fair estimate of minimum cost when applied to other software programs. At one of our largest refineries, this program started out with over 2 million records, while total records for all instances was initially about 3-4 million records, all of which will be affected.

We have a total application count for 4 large BP facilities. Probably all of these applications will need to be reviewed, and most would need to be significantly modified. It is estimated that these software programs are split somewhat evenly between 1) Off-the-shelf software which the vendor would have to change, 2) Internally developed software for which BP owns the code and could manage the work, and 3) A combination of vendor supplied software that we have significantly adapted to our site and these would require joint effort to modify. These numbers of applications are representative of the larger facilities, while the smaller facilities will have much fewer applications, along with much fewer resources:

- Larger Refinery--193
- Medium-Large Refinery--110
- Very Large Refinery--220
- Very Large Ref & Chem Complex--324

BP-Amoco (non-ARCO) spent about \$300 million world-wide on Y2K over 4 years....it is estimated that about half of that amount, or \$150 million, would be minimum Y2K cost for BP US. We believe the minimum cost of CORMERRR would have to be greater than Y2K.

A large refinery's share of a central Process Operation Information System software cost was over \$1 million. Therefore, using the 10-15% factor discussed above, this facility's share of modifying the program (if it needed it) would be a minimum of \$100-150 thousand for just this ONE program. This program stores 61,000 different daily average data points each day. This amounts to 110 million records for a 5 year record retention period. And this is simply the ONE daily average value, not the 1400 minute averages or more detailed data records which are processed through the computer to generate this ONE daily number. So, this one data system would easily process over 150 billion discrete values over 5 years for just this one facility.

If we looked at the estimated 25 US sites that have significant HSE presence, and if each of these sites had 10 different applications of substance which had similar cost/maintenance structure as EIP to upgrade (\$225,000 each), then the total cost to the company for these limited large programs would be \$56 million (25 X 10 X \$225,000). TXC has 3 separate programs that cost more than \$6 million combined development cost, so these 3 software packages alone would cost nearly \$1 million to upgrade.

In addition to these larger sites, we have many small sites which are part of EPA regulated community. These small US sites include over 6,000 service stations. Nearly all of these locations have a computer processor to manage their data, some of which will be used to determine whether the site needs to report to EPA.

In addition to the initial cost of making these software updates to comply, it is necessary to maintain and store the additional data that includes the entire electronic audit trail. Data would have to be retained for at least 5 years or longer, with full audit trail and data fully accessible for reporting.

Regarding the simple case of e-mail, the amount of storage would increase by a 10-fold minimum. (This assumes that people conservatively store their email for one year, and that they delete 50% of their mail as it is processed.) Compliance with CROMERRR would require saving all e-mail with attachments for minimum of 5 years.

Also, the performance of many of these programs would become pathetically slow if all of this additional archiving were required. It would be necessary to add additional hardware to increase overall server capacity.

We have also left out the impact on daily operations that would be felt if the CROMERRR recordkeeping rule were implemented. Being able to modify virtually every program without destroying some portion of the integrity of the overall program is questionable, thus having another adverse affect on everyday business.

Finally, since the proposed electronic recordkeeping rule applies to "any combination of text, graphics, data, audio, pictorial, or other information represented in digital form that is created, modified, maintained, archived, retrieved or distributed by a computer system", it is possible that your telephone message system might be included also. We don't know of anyone who is keeping all of the audex telephone messages for 5 years.

THE ABOVE INFORMATION THAT BP STAFF PROVIDED INDICATES THAT THE OVERALL IMPACT OF CROMERRR RECORDKEEPING PROPOSED RULE WOULD HAVE A SEVERE NEGATIVE IMPACT ON BP'S US OPERATIONS. IT HAS BEEN DOCUMENTED THAT THE ACTUAL OVERALL COST TO THE PHARMACEUTICAL INDUSTRY TO COMPLY WITH A SIMILAR FDA RULE IMPLEMENTED IN 1997 IS GREATER THAN \$100 MILLION PER COMPANY. IT IS OBVIOUS THAT THE COST TO BP'S US SITES WOULD BE AT LEAST \$150 MILLION AND SPREAD ACROSS ALL BUSINESS STREAMS. THE RECORDKEEPING PORTION OF THE CROMERRR RULE NEEDS TO BE WITHDRAWN AND REWRITTEN WITH ASSISTANCE OF REGULATED COMMUNITY.